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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,150

01/19/2006

Pieter Willem Jedeloo

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06/27/2008

NXP, B.V.

NXP INTELLECTUAL PROPERTY DEPARTMENT

M/S41-SJ

1109 MCKAY DRIVE

SAN JOSE, CA 95131

EXAMINER

HSIEH, PING Y

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

06/27/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/565,150	Applicant(s) JEDELOO, PIETER WILLEM	
	Examiner PING Y. HSIEH	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim 4 is cancelled.

Claims 1-3 and 5-12 are pending.

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6, 7 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kodim (U.S. PATENT NO. 7,005,940).

-Regarding claims 1, 11 and 12, Kodim discloses antenna switch which is arranged to alternately operate in a receive mode and a transmit mode (**antenna switch 10 as disclosed in fig. 3a**), the antenna switch comprising an adaptive filter (**multiband transformation stage 14 as disclosed in fig. 3a**) for coupling a signal processing means to an antenna during the receive mode (**an input/output port configured as antenna port 22 are each coupled to a node 24 as disclosed in fig. 3a and further disclosed in col. 7 lines 9-10**) and for electrically insulating the signal processing means from the antenna (1) during the transmit mode (**as disclosed in fig. 3a and col. 8 lines 27-44**), wherein the adaptive filter (**multiband transformation stage 14 as disclosed in fig. 3a and further disclosed in col. 7 lines 32-58**) has a first passband during the transmit mode (**transmit GSM 1800/GSM 1900 mode and transmit GSM 900 mode as disclosed in fig. 6 and col. 8 lines 20-25**) and a second passband during the receive mode (**receive GSM 900/GSM 1800 mode as disclosed in fig. 6 and col. 8 lines 20-25**).

-Regarding claim 2, Kodim further discloses the signal processing means are electrically insulated from the antenna by controllably configuring the adaptive filter such that the adaptive filter is coupled between the antenna and ground during the transmit mode (**as disclosed in fig. 3a and col. 8 lines 27-44**).

-Regarding claim 3, Kodim further discloses the adaptive filter is a high-impedance filter during the transmit mode (**as disclosed in fig. 3a and col. 8**

lines 27-44) and a low-impedance filter during the receive mode **(as disclosed in fig. 3a and col. 9 lines 49-55).**

-Regarding claim 6, Kodim further discloses a switch device through which the signal processing means is coupled to the adaptive filter **(low power stage 16 as disclosed in fig. 3a and further disclosed col. 8 lines 3-6).**

-Regarding claim 7, Kodim further discloses the switch device is a low-power switch device **(see col. 6 lines 1-17).**

-Regarding claim 10, Kodim further discloses switching devices **(D1 and D2)** to change the geometry of the adaptive filter **(multiband transformation stage 14 as disclosed in fig. 3a).**

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodim (U.S. PATENT NO. 7,005,940).

-Regarding claim 5, Kodim teaches all the limitations as claimed in claim

1. Although Kodim does not specifically disclose the first passband is a band-pass passband and the second passband is a highpass passband, it would have been obvious to one of ordinary skills in the art at the time of invention to do so in order to keep the operation in the desired frequency bands only and to reduce interference to other users.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodim (U.S. PATENT NO. 7,005,940) in view of Phillips et al. (U.S. PATENT NO. 6,765,536).

-Regarding claim 8, Kodim teaches all the limitations as claimed in claims

1, 6 and 7. However, Kodim does not specifically disclose the low-power switch device is a low-power pHEMT.

Phillips et al. disclose the switching device can be pHEMT as disclosed in col. 4 lines 33-50.

Therefore, it would have obvious to one of ordinary skills in the art at the time of invention to modify the low-power switch to be a pHEMT. One is motivated as such in order to provide low noise and high gain.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodim (U.S. PATENT NO. 7,005,940) in view of Fukamachi et al. (U.S. PG-PUB NO. 2004/0266278).

-Regarding claim 9, Kodim teaches all the limitations as claimed in claim 1. However, Kodim does not specifically disclose the adaptive filter is further arranged to provide electrostatic discharge protection.

Fukamachi et al. disclose electrostatic protection as shown in figs. 1-3 and further disclosed in paragraphs 81-92.

Therefore, it would have been obvious to one of ordinary skills in the art at the of invention to modify the antenna switch as disclosed by Kodim to include the electrostatic discharge protection as disclosed by Fukamachi et al. One is motivated as such in order to prevent the breakdown of high frequency parts by electrostatic surge.

Response to Arguments

9. Applicant's arguments filed 4/30/08 have been fully considered but they are not persuasive.

a. In page 4 of the remarks, applicant argues that the examiner did not attach an initialed copy of the Non-Patent Literature Documents section of PTO-1449 form references that were submitted to the USPTO on January 19, 2006.

-The examiner respectfully disagrees. An initialed copy of the Non-Patent Literature Documents section of PTO-1449 form references that were submitted to the USPTO on January 19, 2006 was mailed out on January 31, 2008.

b. In page 4 of the remarks, applicant argues that the drawing requirements for U.S. National Stage applications are identified in MPEP 1825 and labeling of figures as "Prior Art" is not required (see PCT Rule 11.11).

-The examiner respectfully disagrees. PCT Rule 11 only deals with physical requirements, and the "prior art" label is concerning the content and disclosure of the drawing.

c. In pages 4-6 of the remarks, applicant argues that Kodim does not disclose all of the limitations of the claim because Kodim does not disclose an adaptive filter having two passbands, one operative during the transmit mode, and another operative during the receive mode, as recited in the claim.

-The examiner respectfully disagrees. Kodim indeed discloses an adaptive filter (multiband transformation stage 14, fig. 3a) which is able to change its operating band by varying the length of the transmission lines T1 and T2 as disclosed in col. 7 lines 32-58. Kodim further discloses a first passband (900 MHz, fig. 6) during the transmit mode (TX_GSM900, fig. 6) and a second passband (940 MHz, 1840 MHz, and 1960 MHz, fig. 6) during the receive mode (RX_GSM900_GSM1800_GSM1900, fig. 6). Based on this reasonable interpretation of the claims, the examiner insists that Kodim does teach the limitations of claim 1 as set forth in the standing 102 rejection. The rejection has been revised to more clearly set forth the above reasoning.

10. Applicant's arguments with respect to claims 5, 8 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PING Y. HSIEH whose telephone number is (571)270-3011. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. Y. H./
Examiner, Art Unit 2618

/Lana N. Le/
Acting SPE of Art Unit 2618

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